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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/808,446	03/25/2004	James Huang	040139	4859

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EXAMINER	
PIZIALI, ANDREW T	

ART UNIT	PAPER NUMBER
1771	

DATE MAILED: 12/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/808,446	HUANG ET AL.	
	Examiner	Art Unit	
	Andrew T. Piziali	1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 November 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *4,5 and 7-9* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *4,5 and 7-9* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *25 March 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The amendment filed on 11/20/2006 has been entered.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 4-5 and 7-9 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contain subject matter that was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. The specification fails to teach or suggest the exclusion of an adhesive layer from an outer surface of the porous layer.

Any negative limitation or exclusionary proviso must have basis in the original disclosure. See *Ex parte Grasselli*, 231 USPQ 393 (Bd. App. 1983), *aff'd mem.*, 738 F.2d 453 (Fed. Cir. 1984). The mere absence of a positive recitation is not basis for an exclusion. See MPEP 2173.05(i).

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 4-5 and 7-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 4 recites the limitation "the outer surface of the porous layer" in lines 7 through 8. There is insufficient antecedent basis for this limitation in the claim. In addition, it is not clear how a surface can "have" a layer.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 4-5 and 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,162,149 to Reaney in view of USPN 6,471,803 to Pelland et al. (hereinafter referred to as Pelland).

Regarding claims 4-5 and 7-9, Reaney discloses an air permeable and waterproof membrane for clothing comprising an asymmetric porous PTFE membrane (11) for clothing comprising a dense skin layer (13) directly next to a continuously foamed porous layer (12) wherein one surface of the foamed porous layer is in contact with an adhesive layer (14) but other (side) surfaces of the foamed porous layer are not in contact with an adhesive layer (see entire document including column 1, lines 5-55, column 2, lines 35-61, claim 1, and Figure 1).

Reaney discloses that the seam tape may comprise a layer of fabric (column 1, lines 53-55), but Reaney does not appear to mention a specific location of the seam tape fabric layer. In addition, Reaney discloses that the porous PTFE may be adjacent a second fabric to be seamed together (column 3, lines 12-17), but Reaney does not mention specific seamed fabrics. Considering that Reaney is silent with regards to specific materials, it would have been necessary and thus obvious to look to the prior art for conventional materials. Pelland provides this conventional teaching showing that it is known in the art of seam tape fabrics to seam together woven nylon fabric and to apply a woven nylon backing to a seam tape (see entire document including column 4, lines 50-65, column 9, line 59 through column 10, line 3, column 10, lines 44-52, and column 11, lines 4-34). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the seamed fabric from woven nylon fabric and to apply a woven nylon fabric backing to the seam tape, as taught by Pelland, motivated by the expectation of successfully practicing the invention of Reaney and to match the seam tape appearance and feel to the appearance and feel of the fabric being seamed together.

Regarding the membrane being air permeable, Reaney discloses that the adhesive layer (14) may be applied by slot coating (column 4, lines 46-53), the dense skin layer (13) possesses porosity (column 3, lines 51-56), and the pores of the porous layer (12) are only partially filed (claim 1). Regarding the currently claimed contact angle of water to the surface of the skin layer and the claimed diffuse reflectance of light of the skin layer, considering the identical skin layer of Reaney, a thermally treated dense skin layer of PTFE (column 4, lines 20-27), compared to

the currently claimed skin layer, it appears that the skin layer of Reaney inherently possesses the currently claimed properties.

The Patent and Trademark Office can require applicants to prove that prior art products do not necessarily or inherently possess characteristics of claimed products where claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes; burden of proof is on applicants where rejection based on inherency under 35 U.S.C. § 102 or on prima facie obviousness under 35 U.S.C. § 103, jointly or alternatively, and Patent and Trademark Office's inability to manufacture products or to obtain and compare prior art products evidences fairness of this rejection, *In re Best, Bolton, and Shaw*, 195 USPQ 431 (CCPA 1977).

Regarding claims 7 and 9, Reaney discloses that the porous PTFE membrane may be obtained according to the teachings of USPN 3,953,566 and USPN 4,187,590 (column 3, lines 57-64). The cited documents obtain porous PTFE by drawing in a biaxial direction.

Regarding claims 8 and 9, Reaney discloses that the porous PTFE may have a thickness of between 10 and 100 μm (column 3, lines 57-64).

8. Claims 4-5 and 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,162,149 to Reaney in view of anyone of USPN 6,471,803 to Pelland or USPN 5,382,223 to Springs in view of anyone of USPN 4,863,788 to Bellairs et al. (hereinafter referred to as Bellairs) or USPN 5,026,591 to Henn et al. (hereinafter referred to as Henn).

Regarding claims 4-5 and 7-9, Reaney discloses an air permeable and waterproof membrane for clothing comprising an asymmetric porous PTFE membrane (11) for clothing comprising a dense skin layer (13) directly next to a continuously foamed porous layer (12)

wherein one surface of the foamed porous layer is in contact with an adhesive layer (14) but other (side) surfaces of the foamed porous layer are not in contact with an adhesive layer (see entire document including column 1, lines 5-55, column 2, lines 35-61, claim 1, and Figure 1).

Reaney discloses that the seam tape may comprise a layer of fabric (column 1, lines 53-55), but Reaney does not appear to mention a specific location of the seam tape fabric layer. Considering that Reaney is silent with regards to specific seam tape fabric layer location, it would have been necessary and thus obvious to look to the prior art for conventional seam tape fabric layer locations. Pelland and Springs each provide this conventional teaching showing that it is known in the art of seam tape fabrics to apply a fabric backing to a seam tape (see entire documents including column 4, lines 50-65, column 9, line 59 through column 10, line 3, column 10, lines 44-52, and column 11, lines 4-34 of Pelland and column 3, lines 15-42 of Springs). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply a fabric backing to the seam tape, as taught by Pelland and Springs, motivated by the expectation of successfully practicing the invention of Reaney and to match the seam tape appearance and feel to the appearance and feel of the fabric being seamed together.

Reaney discloses that the invention relates to breathable waterproof fabrics (column 1, lines 5-30) and that the porous PTFE may be adjacent a fabric to be seamed together (column 3, lines 12-17), but Reaney does not mention specific seamed fabrics. Bellairs and Henn each disclose that it is known in the art of breathable waterproof fabrics to use woven or nonwoven fabrics of polyester, nylon, or cotton (see column 3, lines 53-68 of Bellairs and column 3, lines 22-27, column 6, lines 65-66, and the Examples). Considering that Reaney is silent with regards to specific materials, it would have been necessary and thus obvious to look to the prior art for

conventional materials. Bellairs and Henn each provide this conventional teaching showing that it is known in the art to use woven or nonwoven fabrics of polyester, cotton, or nylon. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the seamed fabric, and also the seamed tape fabric layer, from woven or nonwoven fabrics of polyester, cotton, or nylon, as taught by Bellairs or Henn, motivated by the expectation of successfully practicing the invention of Reaney and because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability and desired characteristics.

Regarding the membrane being air permeable, Reaney discloses that the adhesive layer (14) may be applied by slot coating (column 4, lines 46-53), the dense skin layer (13) possesses porosity (column 3, lines 51-56), and the pores of the porous layer (12) are only partially filed (claim 1). Regarding the currently claimed contact angle of water to the surface of the skin layer and the claimed diffuse reflectance of light of the skin layer, considering the identical skin layer of Reaney, a thermally treated dense skin layer of PTFE (column 4, lines 20-27), compared to the currently claimed skin layer, it appears that the skin layer of Reaney inherently possesses the currently claimed properties.

Regarding claims 7 and 9, Reaney discloses that the porous PTFE membrane may be obtained according to the teachings of USPN 3,953,566 and USPN 4,187,590 (column 3, lines 57-64). The cited documents obtain porous PTFE by drawing in a biaxial direction.

Regarding claims 8 and 9, Reaney discloses that the porous PTFE may have a thickness of between 10 and 100 μm (column 3, lines 57-64).

Response to Arguments

9. Applicant's arguments filed 11/20/2006 have been fully considered but they are not persuasive.

Regarding the newly added negative limitation, the applicant asserts that the air permeability design of the invention precludes an adhesive layer. The examiner respectfully disagrees. For example, a slot coated layer of adhesive allows for air permeability.

The applicant asserts that Reaney fails to teach or suggest a foamed porous layer with an outer surface that does not have an adhesive layer. The examiner respectfully disagrees. Reaney discloses that one surface of the foamed porous layer (12) is in contact with an adhesive layer (14) but other (side) surfaces of the foamed porous layer are not in contact with an adhesive layer (see Figure 1).

The applicant asserts that Reaney teaches away from laminating fabric directly on the dense skin layer because Reaney discloses that a fabric may be laminated to the foamed porous layer. The examiner respectfully disagrees. Reaney does not teach or suggest that a second fabric layer cannot, or should not, be laminated on the outer surface of the dense skin layer. To the contrary, Reaney discloses that the seam tape may comprise a first fabric (column 1, lines 53-55) and the porous PTFE may be adjacent a second fabric to be seamed together (column 3, lines 12-17). Considering that Reaney is silent with regards to specific materials, it would have been necessary and thus obvious to look to the prior art for conventional materials. Pelland provides this conventional teaching showing that it is known in the art of seam tape fabrics to seam together woven nylon fabric and to apply a woven nylon backing to a seam tape (see entire document including column 4, lines 50-65, column 9, line 59 through column 10, line 3, column

10, lines 44-52, and column 11, lines 4-34). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the seamed fabric from woven nylon fabric and to apply a woven nylon fabric backing to the seam tape, as taught by Pelland, motivated by the expectation of successfully practicing the invention of Reaney and to match the seam tape appearance and feel to the appearance and feel of the fabric being seamed together.

The applicant asserts that porous layer of Reaney is not air permeable because it filled with thermosetting adhesive. The examiner respectfully disagrees. Reaney discloses that the pores are "partially filled" (see claim 1).

Conclusion

10. Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew T. Piziali whose telephone number is (571) 272-1541. The examiner can normally be reached on Monday-Friday (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

12/8/06

ANDREW PIZIALI
PRIMARY EXAMINER

atp